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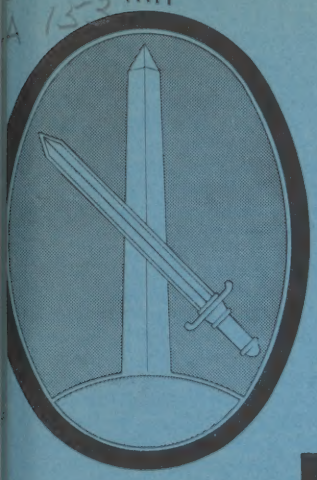

MONTHLY HEALTH REPORT

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MILITARY DISTRICT OF WASHINGTON

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MONTHLY HEALTH REPORT

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HEADQUARTERS, MILITARY DISTRICT OF WASHINGTON
The Pentagon, Washington 25, D. C.

June 1949
Vol. 3 , No. 6

INTRODUCTION

This publication presents periodic health data concerning personnel of the Department of the Army and Department of the Air Force personnel in the Military District of Washington. It provides factual information for measurement of increase or decrease in the frequency of disease and injury occurring at each of the posts, camps or stations shown herein.

It is published monthly by the Military District of Washington for the purpose of conveying to personnel in the field current information on the health of the various military installations in this area and on matters of administrative and technical interest. Items published herein do not modify or rescind official directives, nor will they be used as the basis for requisitioning supplies or equipment.

Contributions, as well as suggested topics for discussion, are solicited from Medical Department officers in the field.

FLOYD V. KILGORE
Colonel, MC
Surgeon

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GENERAL COMMENT:

Unless otherwise indicated, references to diseases and injuries in this publication apply to all Class I and II installations exclusive of Walter Reed General Hospital. Rates are calculated on the basis of a thousand mean strength per year.

With the establishment of a separate Medical Department within the Department of the Air Force, and resulting changes in reporting channels, statistics for medical installations of that service are not available for publication. Statistics presently reported by Army medical installations do include however, those Air Force individuals who are hospitalized at the reporting unit, since reciprical use of either services medical installations is made.

The health of the command is satisfactory. The non-effective rate for the period ending 27 May 1949 is 8.96, a slight increase over the April rate of 7.99.

A decrease is reported in the admission rate for all causes, the current rate 295.8 is compared with 319.7 reported for the previous period. The comparison of total cases does not reflect an accurate trend because the current report period covers four weeks and the previous period included five weeks. All major stations of the command reflected a downward trend in admissions except Fort Myer (South Post). This station increased from a rate of 315.8 last month to a 553.3 rate for the present period.

Disease admissions totaled 456 for the present four week period with a resultant rate of 258.9. This current rate is the lowest reported for admissions for this cause during the present calendar year. Comparison of individual station reports reveals that all posts except Fort Myer (South Post) contributed to this lower rate.

Injury admissions after dropping to 19.6 during April, the lowest rate for the current calendar year, have increased to a 37.3 rate for the present month. All stations reported increased rates except Fort McNair. No injury cases were reported by that post during the month of May. Fort Myer (North Post) had the highest rate, 218.3, for the period.

A slight increase in psychiatric diseases is reported, from 9.8 to 10.7. A total of 19 cases were reported during the four week period.

No deaths were reported by MDW Medical Installations during the period.

COMMUNICABLE DISEASE

Common respiratory disease incidence has continued the decline since March. The current rate is 33.9 per 1000 per year. Rates at all major stations reflected this reduction with Fort McNair reporting no incidence of this disease.

Rates for Pneumonia all types remained the same as the previous month with a rate of 6.2, however, a reduced rate for pneumonia atypical is noted. For this disease a current rate of 1.1 is compared with 3.1 for last month.

Incidence of influenza has also continued to decline since March with a current rate of 7.9 compared with rates of 18.9 and 13.8 for March and April, respectively.

Mumps and Measles both declined during the month with respective rates of 3.4 and 18.6. The previous rate for measles was 21.4 and for mumps, 6.8 per 1000 per year. Fort McNair reported the highest rate for measles during the period with 12 cases and a rate of 156.6

Scarlet Fever, Tuberculosis, Diarrheal diseases and Hepatitis reflected little or no change during May.

Pertinent Statistical tables may be found on pages 2 and 4.

GENERAL DATA
4 Week Period Ending 27 May 1949
(Data from WD AGO From 8-122)

STATION	MEAN STRENGTH			ADMISSIONS						Non-Effective Rate	Number of CDD's	Number of Deaths
				All Causes		Disease		Injuries				
	Total	White	Negro	Cases	Rates	Cases	Rates	Cases	Rates			
Fort Belvoir	10,231	8,402	1,829	197	250.3	180	228.7	17	21.6	17.22	15	0
Fort McNair	996	921	75	26	339.3	26	339.3	0	-	3.14	0	0
Fort Myer (North Post)	1,668	1,470	198	88	685.9	60	467.6	28	218.3	5.51	0	0
Fort Myer (South Post)	1,809	1,809	0	77	553.3	70	503.0	7	50.3	2.51	0	0
General Dispensary, USA	6,858	6,828	30	92	174.5	83	157.3	9	17.2	5.43	0	0
All Others	1,468	1,468	0	44	389.6	39	345.3	5	44.3	1.89	0	0
Total Mil Dist of Wash	23,030	20,898	2,132	524	295.8	458	258.5	66	37.3	8.96	15	0
AMC - Med. Det. (Duty Pers)	1,595	1,422	173	59	480.9	55	596.7	4	32.6	27.69	5	1
AMC - Det. of Patients	1,063	971	92	80	978.4	67	448.3	13	159.0	1000.44	162	5
Army Medical Center - Total	2,658	2,393	265	139	679.8	122	819.4	17	83.1	416.72	167	6
Total Dept/Army Units	25,688	23,291	2,397	663	335.5	580	293.5	83	42.0	51.15	182	6

ADMISSIONS, SPECIFIED DISEASES - RATE PER 1000 PER YEAR
4 Week Period Ending 27 May 1949
(Data From WD AGO Form 8-122)

STATION	Common Respiratory Diseases	Pneumonia All Types	Pneumonia Atypical	Influenza	Measles	Mumps	Scarlet Fever	Tuberculosis	Rheumatic Fever	Diarrheal Disease	Hepatitis	Malaria	Psychiatric Diseases
Fort Belvoir	24.1	12.7	1.3	-	21.6	3.8	-	-	1.3	-	4.2	-	22.9
Fort McNair	-	-	-	-	156.6	-	-	-	-	39.2	-	-	-
Fort Myer (North Post)	46.8	-	-	54.6	15.6	7.8	-	-	-	-	-	-	-
Fort Myer (South Post)	14.4	-	-	35.9	-	-	-	-	-	-	-	-	-
General Dispensary, USA	36.0	1.9	1.9	3.8	3.8	3.8	-	-	1.9	-	-	-	1.9
All Others	122.3	-	-	-	-	-	-	-	-	-	-	-	-
Total Mil Dist of Wash	33.9	6.2	1.1	7.9	18.6	3.4	-	-	1.1	1.7	1.1	-	10.7
AMC - Med. Det.(Duty Pers)	-	-	-	8.2	-	-	-	8.2	-	-	-	-	16.3
AMC - Det. of Patients	-	24.5	12.2	-	24.5	12.2	-	12.2	-	-	-	-	61.1
Army Medical Center-Total	-	9.9	4.8	4.8	9.9	4.8	-	9.9	-	-	-	-	34.2
Total Dept/Army Units	30.4	6.6	1.5	7.6	17.7	3.5	-	1.0	1.0	1.5	1.0	-	13.2

VENEREAL DISEASE

Incidence of Venereal disease has decreased to the lowest rate experienced in the calendar year 1949 to 14.10. All installations reflected reduced or zero rates. Fort Belvoir reported a station rate of 29.22, a marked improvement over the 38.32 reported during April.

A total of 25 cases were incurred during the period of which 23 were reported at Fort Belvoir, 1 at Fort Myer (South Post) and 1 at the General Dispensary, USA, The Pentagon. Of the total number of cases reported, 11 cases were incurred by white personnel and 14 by Negro troops, the rates were 6.84 and 85.37 respectively.

The consolidated rate for personnel of Walter Reed General Hospital more than doubled the April report of 11.32. A total of 5 cases were reported during May for a rate of 24.45. Four cases were incurred by personnel from the Medical Detachment resulting in a 32.60 rate for that section. A rate of 12.23 for 1 case from Detachment of Patient personnel was reported. All cases were among white troops.

A rate of 15.18 is reported computed on the consolidated strength of all Army installations in the Area. This rate is a decrease from the 19.93 rate for April.

In accordance with recently published directives establishing a separate Department of the Air Force Medical Department, statistical information concerning venereal disease among personnel of that service is not available for publication.

- - - - - - - - - - - - - - - - - - - -

Pertinent statistical tables and charts may be found on pages 4, 5, 6 and 7.

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NEW VENEREAL DISEASE CASES - EXCL EPTS - APRIL AND MAY

	Rate per 1000 per year	
STATION	APRIL 49	MAY 49
Fort Belvoir	38.32	29.22
Fort McNair	10.25	-
Fort Myer (North Post)	29.89	-
Fort Myer (South Post)	-	7.19
General Dispensary, USA	-	1.89
All Others	17.91	-
Total Mil Dist Wash Units	20.93	14.10
AMC Med. Det. (Duty Pers.)	18.96	32.60
AMC Detachment of Patients	-	12.23
Army Medical Center - Total	11.32	24.45
Total Dept/Army Units, Mil Dist of Washington	19.93	15.18

CHART 1

ADMISSION RATES BY MONTH, ALL CAUSES, COMMON RESPIRATORY DISEASE AND INJURY

M D W RATE PER 1000 TROOPS PER YEAR

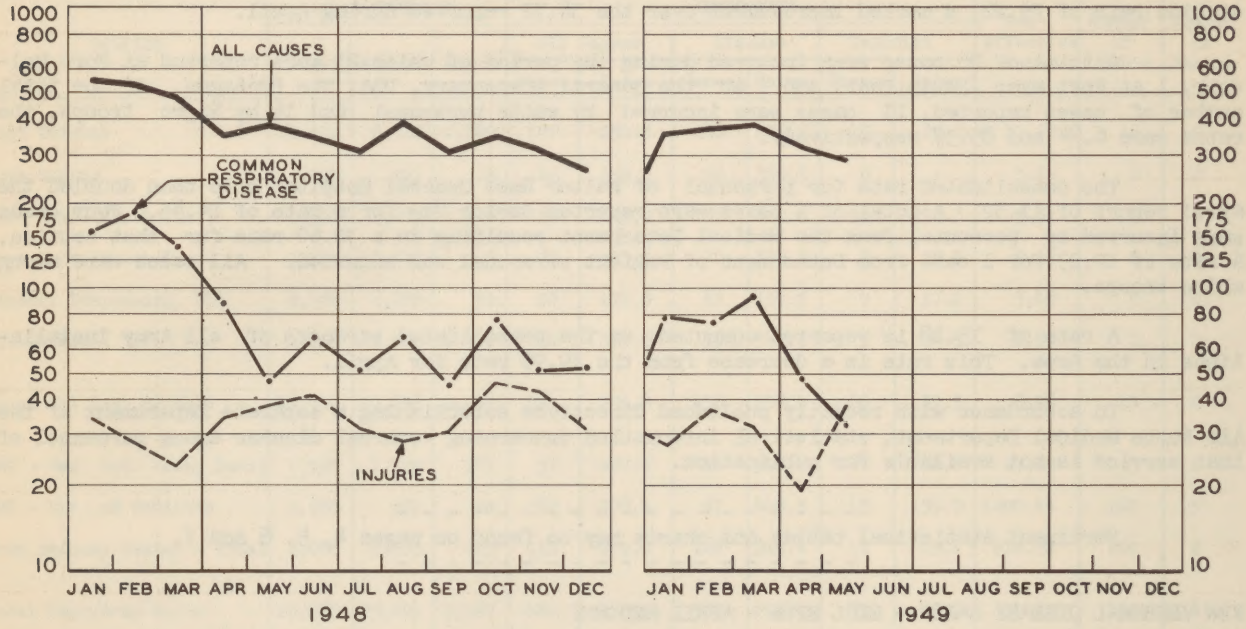
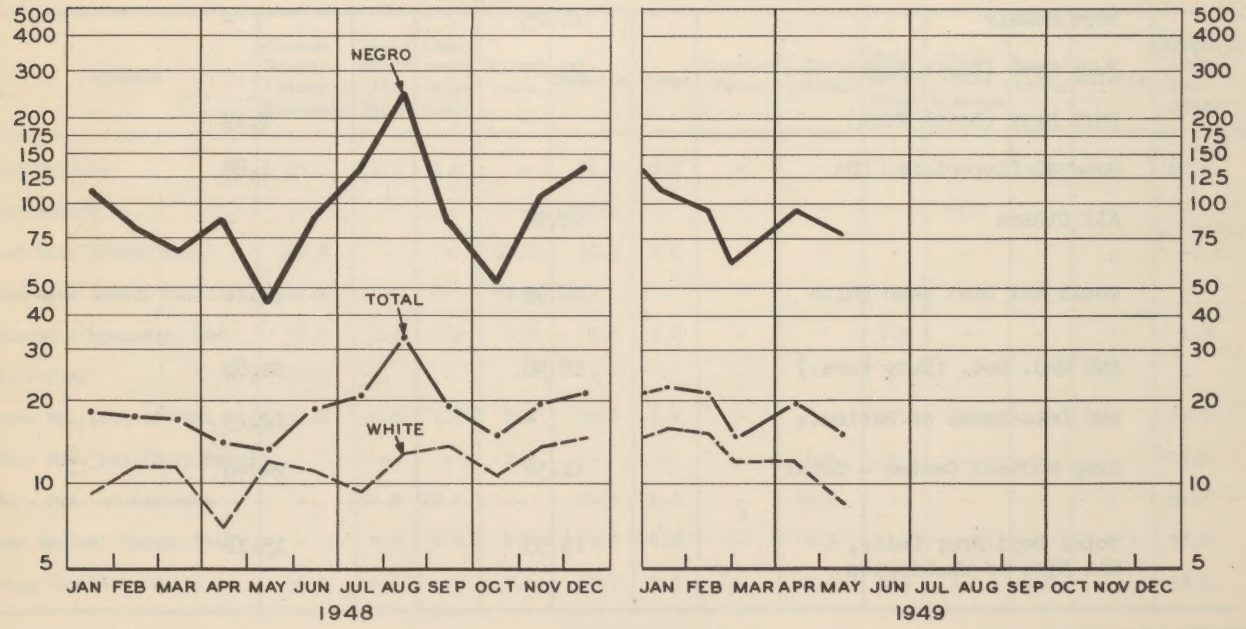


CHART 2

ADMISSION RATES BY MONTH VENEREAL DISEASES MDW INCL. ARMY MEDICAL CENTER

RATES PER 1000 TROOPS PER YEAR

INCLUDES ALL CASES REPORTED ON WD AGO 8-122 EXCEPTING THOSE EPTS



CONSOLIDATED MONTHLY VENEREAL DISEASE STATISTICAL REPORT
For the Four Week Period Ending 27 May 1949
(Data from WD AGO 8-122) (Chargeable Cases)

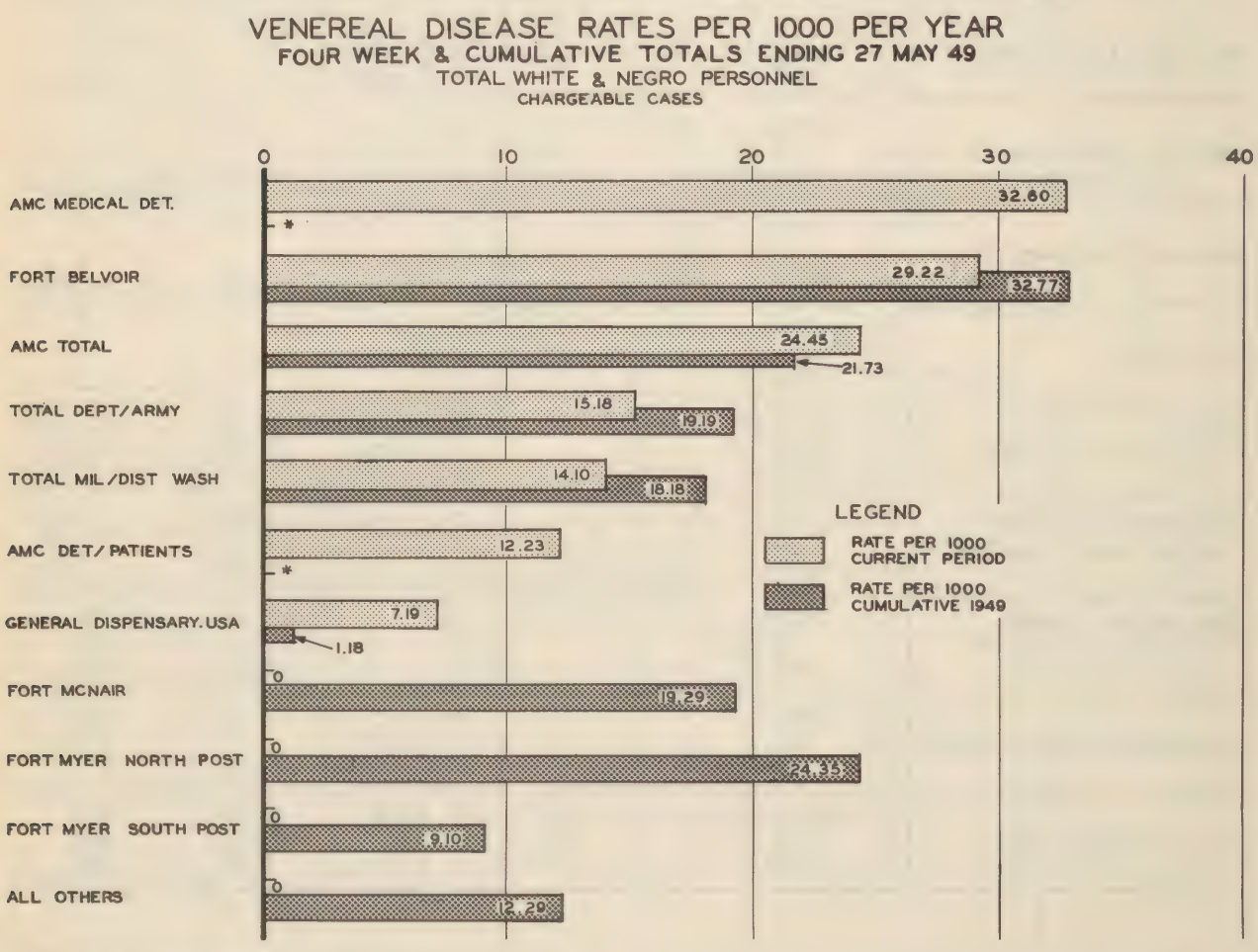
STATION	RACE	Mean Strength	Number of Cases-EPTS Not Included				Rate per 1000 Troops per Annum	Total Days Lost From Duty (Old & New Cases)
			Syphilis	Gonorrhea	Other	Total		
Fort Belvoir	W	8402	0	9	0	9	13.93	1
	N	1829	5	9	0	14	99.51	18
	T	10231	5	18	0	23	29.22	19
Fort McNair	W	921	0	0	0	0	-	0
	N	75	0	0	0	0	-	0
	T	996	0	0	0	0	-	0
Fort Myer (North Post)	W	1470	0	0	0	0	-	0
	N	198	0	0	0	0	-	0
	T	1668	0	0	0	0	-	0
Fort Myer (South Post)	W	1809	0	1	0	1	7.19	0
	N	0	0	0	0	0	-	0
	T	1809	0	1	0	1	7.19	0
General Dispensary, USA	W	6828	0	1	0	1	1.90	0
	N	30	0	0	0	0	-	0
	T	6858	0	1	0	1	1.90	0
All Others	W	1468	0	0	0	0	-	0
	N	0	0	0	0	0	-	0
	T	1468	0	0	0	0	-	0
Total Mil Dist of Wash	W	20898	0	11	0	11	6.84	1
	N	2132	5	9	0	14	85.37	18
	T	23030	5	20	0	25	14.10	19
Army Medical Center Medical Det. (Duty Pers)	W	1422	0	4	0	4	36.57	0
	N	173	0	0	0	0	-	0
	T	1595	0	4	0	4	32.60	0
Army Medical Center Detachment of Patients	W	971	0	1	0	1	13.39	331
	N	92	0	0	0	0	-	275
	T	1063	0	1	0	1	12.23	606
Army Medical Center - Total	W	2393	0	5	0	5	27.16	331
	N	265	0	0	0	0	-	275
	T	2658	0	5	0	5	24.45	606
Total Dept/Army Units	W	23291	0	16	0	16	15.18	332
	N	2397	5	9	0	14	75.93	293
	T	25688	5	25	0	30	8.93	625

VENEREAL DISEASE RATES FOR THE US *

(All Army Troops)

	MAY 1949	APRIL 1949
First Army Area	22	26
Second Army Area	28	25
Mil District of Washington	13	22
Third Army Area	23	22
Fourth Army Area	16	22
Fifth Army Area	15	14
Sixth Army Area	21	22
Total United States	20	22

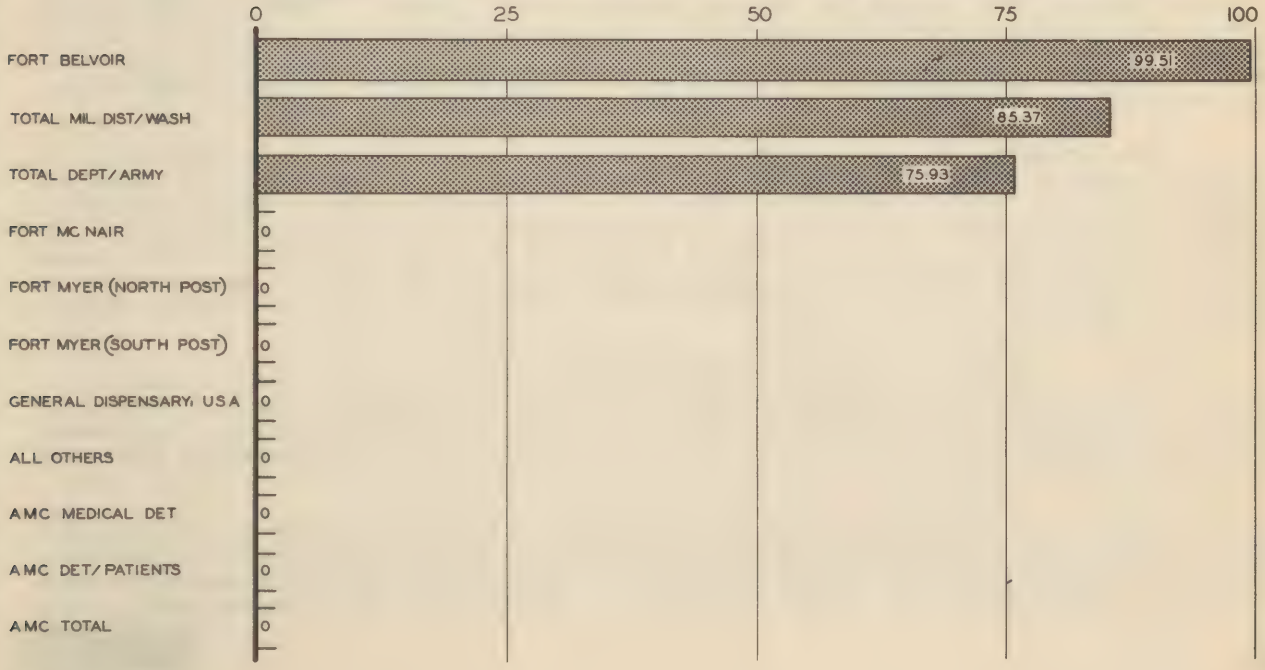
* Compiled in the Office of the Surgeon General and include General Hospitals



* Cumulative rates unavailable.

VENEREAL DISEASE RATE PER 1000 TROOPS PER YEAR
4 WEEK PERIOD ENDING 27 MAY 1949
WHITE PERSONNEL (CHARGEABLE CASES)

VENEREAL DISEASE RATE PER 1000 TROOPS PER YEAR
4 WEEK PERIOD ENDING 27 MAY 1949
NEGRO PERSONNEL (CHARGEABLE CASES)



TICKS AND TICK-BORNE DISEASE

The control of insect borne diseases involves not only the control of the responsible insect vectors, often very difficult, but also the control of the focus of source from which the insect receives its infection.

Probably all species of vertebrate animals are subject to attack by ticks, but particularly mammals whose warm blood is highly attractive to these parasites. The food of ticks consists entirely of blood and lymph and both males and females are bloodsuckers, as are all stages.

There are many species of ticks in the NE US but the one most important in the First Army Area is the common dog tick Dermacentor variablis. D. variablis is a widely distributed North American species reported to be most abundant along the Atlantic coast. It is the principle, if not the only, vector of Rocky Mountain spotted fever in the Central and Eastern portions of the US. It is also an important carrier of tularaemia. It is a first class pest of dogs which are the preferred host, and also freely attacks horses and many other animals including man. The immature stages feed almost exclusively on small rodents such as mice. It is from this feeding on rodents that the virus of Rocky Mountain spotted fever is picked up.

Tick paralysis may be caused by common variety of ticks which attach themselves to the base of the neck, injecting a powerful toxin which affects the nervous system of the individual while feeding on the blood of the host. Weakness and paralysis ensue soon after the tick attaches itself. This usually begins in the lower extremities and continues until the pest is removed. Recovery is rapid.

Ticks are not a true insect. The Class Insecta (the insect group) are essentially segmented with the body regions divided into 3 distinct divisions, head, thorax and abdomen. The tick is easily distinguished from insects in that the body is not divided, i.e., there is a strong fusion of the thorax and abdomen producing a sac-like leathery appearance. The capitulum or head bares many recurved teeth and it is because of the nature of these teeth that the tick is enabled to hold so fast to the host making it difficult to remove it without tearing the capitulum from the body of the tick. The matured tick has four pairs of legs differing from the true insect which has three pairs. The larvae of ticks are basically the same as the adult with the exception of a smaller size and only three pairs of legs.

The adult female tick deposits eggs usually upon the ground, the number varying from 100 to 5,000. The seed tick emerging from the egg commonly climbs up grasses or other low vegetation in order to come within easy reach of passing animals. With each attachment to a host and feedings the immature tick passes through a number of molts until it reaches its final size and maturity. Infection of virus is transmitted to the offspring of the female tick through the egg. Consequently, newly developed seed ticks are of importance in disease transmission.

The percentage of ticks that contain infectious virus is reported to be very small. It may be less than 1% and rarely as high as 5%. Tick bites grow more dangerous as the season advances. The biting period for adult ticks normally lasts from early spring to the middle of July. Ticks found after the middle of July are usually immature, and at this time rarely feed on man. In the early spring, when the virus in the recently emerged tick is at the lowest ebb of infectiousness and while the days and nights are still cool it takes so long for the virus to become reactivated after a tick has become attached to a warm blooded host that the tick is usually detected and removed before the virus has become virulent.

The best way to remove ticks is by applying chloroform, turpentine or ether to the body of the tick. Ticks may also be removed by applying heat such as a cigarette or a match to the posterior of the tick. They should be removed slowly with a pair of tweezers, care being used not to squeeze the body and thus force more toxin into the host. The site of the bite should be treated with an antiseptic.

There is no satisfactory chemical treatment for the control of ticks in large outdoor areas. However, DDT dust applied at the rate of 4 pounds per acre (40 pounds of 10 per cent dust) will assist in reducing the tick population of an area. Since adult ticks tend to congregate along paths and roadsides where there is more opportunity to attach themselves to passing warm blooded

hosts, special attention should be given to DDT treatment of the vegetation along paths and roadways. It is advisable to apply more DDT along these areas, and a rate of 6 pounds (60 pounds of 10% dust) of DDT is not too much.

The use of the standard Army insect repellent (QM Stock No. 51-R-265) is beneficial in preventing ticks from attaching themselves to clothing. It has been found that the application of this repellent to the upper portion of field shoes and to the cuffs of trousers is of value. TM 5-632, Insect and Rodent Control, recommends treating outer clothing, the repellent being rubbed into or sprayed on the clothing at a rate of 3 to 4 ounces for the entire outer garment.

Extracted from "First Army Medical Bulletin", May 1949. Mr. I. H. Waller, Entomologist, Office of the Engineer, Headquarters First Army.

ROCKY MOUNTAIN SPOTTED FEVER IMMUNIZATION

The following Department of the Army, Surgeon General's Office letter, file MEDCE, Subject as above, dated 1 April 1949 is quoted for information:

> "1. The Commission on Immunization of the Army Epidemiological Board has recommended that Rocky Mountain spotted fever vaccine be given only in selected instances to military personnel.
>
> 2. The following factors were considered:
>
> a. Rocky Mountain spotted fever vaccine is now available from commercial sources.
>
> b. Anitbiotics are available commercially which provide specific therapy for Rocky Mountain spotted fever.
>
> c. Rocky Mountain spotted fever vaccine is not completely effective and its use may result in a false sense of security. Chief reliance for protection of individuals should be placed on avoidance of ticks and their removal from the body.
>
> 3. Individuals who request immunization should be advised in accordance with paragraph two above.
>
> 4. Requisitions for Rocky Mountain spotted fever vaccine will not be approved except for military personnel or civilian employees who must, because of their duties, spend considerable time in the brush in regions where Rocky Mountain spotted fever is particularly prevalent."

PROGRESS IN VIRUS AND RICKETTSIAL DISEASES

In the diagnostic field many individuals have the impression that isolation of the virus or rickettsial agent is the best diagnostic procedure available. This is not true insofar as diagnosis for purposes of clinical and epidemiological information is concerned. Isolations are still a problem in research and are not available in the United States except in a very few of our largest laboratories. Useful information can be secured in shorter time with less effort and with much less expenditure of funds by the use of serologic methods. In our laboratories the minimal time necessary for isolation and identification is 3 days for variola, 8 or 9 days for rabies and about 12 days for lymphocytic choriomeningitis, influenza, psittacosis, St. Louis encephalitis, Eastern and Western equine encephalimyelitis and the rickettsiae of the typhus group. These may be considered as rapid identifications with the finest possible facilities. It will be seen that, due to the time needed for isolation procedures, the findings would be of value chiefly in epidemiological work. Effective preventive measures could be instituted in many instances in an uninfected population by the use of stock vaccines. For instance, in influenza early knowledge of the identity of the causative factor would be of great value as a guide to the administration of vaccines containing specific strains, but such information cannot be made available early at this time hence serological methods probably provide equally valuable information for the purpose. Ordinarily isolations should be attempted only in specimens taken early in the disease where mixed infections or new strains are suspected. Clinical laboratories are not prepared to accomplish isolations. Complement fixing and agglutinating antigens are not available commercially in most cases and this factor makes these tests available only in laboratories capable of preparing their own antigens or in those few smaller laboratories which are supplied with these reagents. With some special training of personnel a good hospital laboratory can run a few neutralization tests. This is the most dependable test for the encephalitides--St. Louis encephalitis, Western and Eastern equine encephalomyelitis. Complement fixation tests are less important because they are less specific especially in St. Louis encephalitis.

At least two serums are necessary for all these tests. The first specimen should be collected on or before the sixth day and the second about twenty-one days after the onset. The viral encephalitides occur during the summer and are limited geographically. Eastern equine is found east of the Mississippi River, St. Louis and Western, west of the Mississippi and all three may be found in eastern Texas, Louisiana, Mississippi and Alabama. Neither Eastern nor Western has been reported in Pennsylvania, Tennessee or West Virginia since 1935. This knowledge of geographic limitation serves a useful purpose in that ordinarily speaking we need search for the strain suspected only in its own area. It must of course be remembered that crossing into other zones is always possible.

A discussion of the significance of the tests mentioned may be helpful. In the neurotropic group the neutralization test may be significant in the first or second week and the complement fixation test is only partially significant even as late as the seventh week in Eastern and Western equine encephalomyelitis while the reverse situation is true in lymphocytic choriomeningitis--the complement fixation test is significant as early as the second week and the neutralization test is dependable only late, perhaps as late as the eighth or tenth week. Although more work for the proper interpretation is needed, in St. Louis and in Japanese encephalitis the complement fixation is usually positive earlier than the neutralization test. The latter test is the more dependable because overlapping is apt to be encountered in the complement fixation test. The serologic pattern in Eastern is essentially the same as in Western especially in the case of the neutralization test. In psittacosis complement fixation tests there are cross fixations with immune serums from lymphogranuloma venenum cases and a Frei test may be necessary for differential diagnosis. In psiittacosis the complement fixation titer rises early, perhaps in the first week and persists for long periods after convalescence whereas other closely allied diseases are characterized by early fall in titer of the complement fixing bodies.

The cause of primary atypical pneumonia has not been discovered but the evidence is preponderantly in favor of virus causation. Cold hemagglutinins have been described in several other diseases but primary atypical pneumonia is the only respiratory disease which will probably show a rising titer to a high level or a high titer in a single specimen. Four fold rise in agglutination of Strep. M.G. or 344 is common. Unfortunately high titers are usually found late in the disease. In influenza the most dependable test is the hemagglutination-inhibition test. Specimens of serum should be taken early--about the second day--and on the eighth or ninth day. The two specimens

should be tested simultaneously. Presence of antibodies prevents hemagglutination by the influenza virus and a rising titer in the second specimen over the first is diagnostic. Isolation of the virus is not too difficult. Hemagglutination of chick cells in the embryonated egg is diagnostic of the presence of the virus if the clinical picture is that of influenza.

In the study of virus diseases as well as those belonging to the rickettsial group we have been afforded considerable assistance in recent years by the advent of such instruments as the phase, the ultraviolet and the electron microscopes. Some of the largest viruses can be visualized in the light microscope but morphological details are lacking. Viral bodies of less than 250 millimicrons cannot be resolved. In the ultraviolet microscope this range can be extended to about 75 mu while with the electron microscope it is possible to resolve bodies no larger than 10 mu. Useful magnification with this machine runs to about 40,000 and with "shadowing" of specimens the range may be increased to 100,000.[1] With these machines a few viruses can be identified by shape and size only while determination of size is of great assistance in other forms of identification.

In the rickettsial diseases complement fixation is available for epidemic and murine typlus, for Q fever, rickettsialpox and Rocky Mountain spotted fever.[2] In addition rickettsial agglutination may be used to differentiate epidemic and murine typhus. The Weil-Feliz test is a useful presumptive diagnostic test in all forms of typhus and in Rocky Mountain spotted fever. OXK agglutination is particularly significant in scrub typhus. Specimens for these tests should be collected before the sixth and between the twelfth and twenty-first days. Findings in this test are usually as follows: Murine typhus, epidemic typhus and Rocky Mountain spotted fever show low titer agglutination of OX19 in first specimen. Scrub typhus shows none. In the second specimen murine shows positive agglutination up to 1-500, holding above 1-80 for one year. Epidemic shows positive agglutination up to 1-320 and drops to 1-80 or lower in three months. Scrub typhus and Rocky Mountain spotted fever show no rise. Murine and epidemic show sharp and significant rises by the 11th-13th day. Murine shows only low positive OX2 agglutination in one-fourth of cases in first specimen while epidemic shows the same in only one-third of cases. The second test shows rise to less than 1-100 agglutination with OX2 in both murine and epidemic. Scrub gives no agglutination in either specimen while Rocky Mountain spotted fever gives sharp rise to a high titer with OX2. With OXK murine shows either no agglutination in either specimen or low only in second specimen. Essentially the same reaction is found in epidemic. Scrub shows a very high titer with OXK and Rocky Mountain spotted fever shows nothing.[3,4]

In consideration of the present lack of definite information concerning interpretation of many of the tests mentioned we are loath to set up a table of significant titers. It is considered better to make a careful examination of the patient or, failing this, to secure a good history and judge each case in light of the laboratory findings as interpreted by a virologist having wide experience in his field. With this concept in mind we can consider approximate interpretations in positive laboratory findings.

Cold hemagglutinin titers of 32+ are abnormal and in the range 125-1000 are indicative of primary atypical pneumonia. A three or fourfold rise over the findings in an early specimen is more specific in all this class of diseases than is a finding of a relatively high titer in a single sample.

In St. Louis encephalitis a neutralization index of 20 might be quite significant. Eastern and Western must show a higher index ordinarily. Early--fifteenth day--finding of complement fixing bodies with no neutralizing bodies in St. Louis is indicative of recent infection. The agglutinin inhibition test for influenza is one of our most dependable diagnostic tests if conducted on two specimens, the latter of which shows a marked rise in titer. It must be remembered that virus of mumps, vaccinia, variola and the rickettsiae of scrub typhus all give chick red cell agglutination. Inhibition by antisera is specific for the virus producing the agglutination.[5] Differentiation can usually be accomplished by history and physical examination without resort to a neutralization procedure.

In the consideration of preventive measures as applied to virus and rickettsial diseases there are certain members of the group--smallpox, rabies and yellow fever--in which the means of prevention are so well known and understood that consideration here is unnecessary. In equine encephalomyelitis vaccines for Eastern, Western and Venezuelan have been given extensive field trials in animals. The Eastern and Western vaccines are completely protective for horses in epidemic areas.

No case has ever occurred in a properly vaccinated horse under such conditions. They are completely protective for laboratory personnel. The Venezuelan vaccine produces good protection in animals and is being tested for protection of laboratory personnel at this time. Western vaccine produces a very high immunogenic response--0.5 ml. intradermally producing an antibody response after 21 days which protects against 80 MLD's of the virus intracerebrally in horses. The protective titer of the serum is about 300 times as great as that found in the brain fuild.

Extensive field tests are being carried out by the Army on the efficacy of Japanese encephalitis vaccine as a preventive measure in man. Some clinical cases have occurred in the vaccinated group but we feel hopeful concerning its overall efficacy.

In epidemic typhus the vaccine is efficient in laboratory personnel but little controlled field work has been done, this measure not being considered necessary. Army experience during World War II indicates that it is a highly effective agent. The vaccines for scrub typhus have proven to be valueless in their present forms.

The vaccine for Rocky Mountain spotted fever although it does not prevent the development of the disease certainly reduces the mortality.[6]

Until recently the treatment of all virus and rickettsial diseases was unsatisfactory. Lymphogranuloma venereum responds to sulfadiazine. Para-aminobenzoic acid, if given in large doses, modifies the course of Rocky Mountain spotted fever,[7] louse borne typhus[8] and scrub typhus[9] markedly. Large doses of this drug may cause lowering of the CO_2 combining power of the serum and may produce a mild leukopenia.[7]

Chloromycetin will cause rickettsiostasis and result in cure of scrub typhus, epidemic and murine typhus and Rocky Mountain spotted fever. In scrub typhus there is good evidence that this antibiotic will keep the disease at a subclinical level in field infections for long periods of time and that cure will result after administration of proper therapeutic doses. A new antibiotic, aureomycin, produces the same results in Rocky Mountain spotted fever in from 12 to 72 hours[10] and holds considerable promise in other diseases. Both these antibiotics are being investigated intensively at this time in an attempt to determine their value in a large number of diseases.

Hyperimmune sera given very early in some of the viral encephalitides may be helpful but it does not affect the disease after symptoms are well developed. Gamma globulin made from immune serum will markedly modify measles if given early.

1. Smith, David T., Martin, Donald S., et al.: Zinsser's Textbook of Bacteriology, 9th Ed., Appleton, New York, page 683.
2. Francis, Thomas, Jr., et al.: Diagnostic Procedures for Virus and Rickettsial Diseases, Am. Pub. H. Assn., New York, page 311 et seq.
3. Plotz, Harry et al.: The Serological Pattern in Typhus Fever. I Epidemic, Am. J. Hyg., 47, No. 2, 150-165 (March) 1948.
4. Scoville, Addison B., Jr., et al.: The Serological Pattern in Typhus Fever. II Murine, Am. J. Hyg., 47, No. 2, 166-176 (March) 1948.
5. Rivers, Thomas M., et al.: Viral and Rickettsial Infections of Man, J. B. Lippincott Co., 1948, page 78.
6. Ibid., page 505.
7. Kelsey, W. M. and Harrell, G. T.: Management of Tick Typhus (RMSF) in Children, JAMA, 137: 1356-1361 (Aug. 14) 1948.
8. Yeomans, A.; Snyder, J. C.; Murray, E. S.; Zarafonetis, C. J. D. and Ecke, R. S.: The Therapeutic Effect of Para-aminobenzoic Acid in Louse Borne Typhus Fever. JAMA 126: 349-356 (Oct. 7) 1944.
9. Tierney, N. A.: Effect of Para-aminobenzoic Acid in Tsutsugamushi Disease, JAMA, 131: 280-285 (May 25) 1946.
10. Bryer, Morton S., et al.: Aureomycin, JAMA, 138: 117-119 (Sept. 11) 48

Extracted from a talk presented at the 55th Annual Convention of Military Surgeons and published in "The Military Surgeon", March, 1949, Volume 104, Number 3, by Colonel Rufus L. Holt, M.C., U. S. Army.

POUNDS MEAT AND MEAT FOOD AND DAIRY PRODUCTS INSPECTED MAY 1949
(Data obtained from WD AGO Form 8-134)

STATION	CLASS * 3	CLASS * 4	CLASS * 5	CLASS * 6	CLASS * 7	CLASS * 8	CLASS * 9	TOTAL
Fort Lesley J. McNair		68,348	85,733		154,081	7,926		316,088
Fort Belvoir, Virginia		194,849	229,221	1,516	484,420	83,865		993,871
Potomac Yards Distribution Point		332,206	56,727	384,095				773,028
Fort Myer, Virginia		168,220	137,922		355,719	7,292		669,153
Mil Dist/Washington Vet Det	227,280							227,280
US Navy	198,571							198,571
The Pentagon						278,318		278,318
Total	425,851	763,623	509,603	385,611	994,220	377,401		3,456,309
Army Medical Center		161,330	73,661		234,991	4,553		474,535
Washington Quartermaster		78,894	83,196		183,400	14,037		359,527
Andrews Air Force Base		71,068	67,291		134,437	16,586		289,382
Bolling Air Force Base		131,759	107,644	5,102	266,621	104,662	11,301	627,089
Total		443,051	331,792	5,102	819,449	139,838	11,301	1,750,533
Grand Total	425,851	1,206,674	841,395	390,713	1,813,669	517,239	11,301	5,206,842
REJECTIONS:								
Insanitary or Unsound								
Fort McNair		303						303
Army Medical Center						18		18
Bolling Field					558			558
Fort Myer					378			378
Mil Dist/Washington Vet Det	622							622
US Navy	120							120
Not type, class or grade								
The Pentagon						287		287
Mil Dist/Washington Vet Det	7,157							7,157
US Navy	1,945							1,945
TOTAL REJECTIONS	9,844	303			936	305		11,388

BRUCELLOSIS

Brucellosis, a specific infectious disease of man and animal, is caused by bacteria of the genus brucella. There are three types of this organism, (a) brucella abortus, most commonly found in cattle, (b) brucella suis, most commonly found in pigs, and (c) brucella melitensis, most commonly found in goats. Brucellosis is world wide in distribution. Reports indicate that 5 percent of the cattle in the United States are affected with this disease.

Brucellosis in man is known as Udulant Fever or Malta Fever. One of the first cases of this disease reported in man originated in the United States in 1905. There is much evidence that the disease existed in the U. S. and in other countries many years prior to its diagnosis. Since the initial case was reported in man in 1905, the number of reported cases has materially increased. A number of recent studies show that the actual number of cases of chronic brucellosis is at least ten times the number of reported cases. There are approximately 7,000 human cases reported annually. The disease is being recognized at a higher rate each year.

A wide variation in the incidence in the different occupational groups has been shown. Men working on farms, or in packing houses are usually infected by direct contact with infected animals and fresh meat products. Brucellosis is acquired by many veterinarians and laboratory workers because of the nature of their professional work. It has been established by experimental work and epidemiological studies that the infection can be acquired especially through the abraded skin and the conjunctiva of the eye. Major sources of human infection are raw dairy products and the infective animal discharges. Man is most susceptible to the goat type of organism, slightly less to the swine type and even less to the cattle type. Scientific investigation indicates, rarely if ever, does one human contact brucellosis from another. In view of the present knowledge of this brucella infection, the prevention and control of the disease in man depends directly upon its control and eradication in our domestic animals.

Brucellosis has been and is being successfully controlled in thousands of herds and hundreds of different areas in the U. S. The procedures required for successful control have been well established. The brucella organism is destroyed at pasteurization temperature. Recently, antibiotics known as Aureomycin and Streptomycin have produced good results in the treatment of this infection in man.

OUTPATIENT SERVICE

Consolidated statistical data on the outpatient service, Military District of Washington, less Walter Reed General Hospital, and U.S.A.F. installations for the four week period ending 27 May 1949, are indicated below:

ARMY:
Number of Outpatients..... 6,062
Number of Treatments.....19,228

NON ARMY:
Number of Outpatients..... 5,223
Number of Treatments.....11,935

NUMBER OF COMPLETE PHYSICAL EXAMINATIONS CONDUCTED..... 1,463

NUMBER OF VACCINATIONS AND IMMUNIZATIONS ADMINISTERED.. 7,264

HOSPITAL MESS ADMINISTRATION
(Data from WD AGO Form 8-210)

STATION	February 49	March 49	April 49	May 49
FORT BELVOIR				
Income per Ration	$ 1.113	$ 1.071	$ 1.059	$ 1.073
Expense per Ration	1.015	1.054	1.045	1.070
Gain or Loss	+ 0.098	+ 0.016	+ 0.014	+ 0.003

DENTAL SERVICE - MONTH OF MAY 1949

STATION	Officers	Days of Duty	Sittings	Amalgam	Oxy and Amal	Silicate	Inlays	Bridges	Bridge Repair	Crowns	Dentures			Extractions	Calculus Removed	X-Rays	Examinations
											Full	Partial	Repair				
Fort Belvoir	5	147	1143	559	269	222	0	6	0	0	7	17	17	311	102	186	926
Fort McNair	1	22	614	178	72	33	0	0	0	0	0	9	0	37	103	16	59
Fort Myer (North Post)	1	31	1017	211	40	47	1	0	3	0	1	11	9	53	13	769	546
Fort Myer (South Post)	1	24	357	106	11	19	0	0	1	0	5	13	4	81	5	192	138
General Dispensary, USA	4	114	2612	296	109	137	1	4	9	1	9	32	11	127	264	721	862
All Others	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Mil Dist of Wash	12	338	5743	1350	501	458	2	10	13	1	22	82	41	609	487	1884	2531

Following is a list of publications which are of particular interest to the Medical Department:

DEPARTMENT OF THE ARMY CIRCULARS

Cir No.	Subject	Date
70	Payment of Military Personnel	6 May 49
71	Storage Depots	10 May 49
72	Official Passenger Vehicles - Army Regulation and Special Regulation - Supercession of WD/DA publications	
73	Appointments to United States Military Academy Alloted for Enlisted men	13 May 49
75	Procurement of 2nd Lieutenants for Active Duty - Supercession of WD/DA Publications	16 May 49
76	Transportation of Household Goods	17 May 49
77	Voting	20 May 49
78	Implementation of Career Guidance Plan for Warrant Officers and Enlisted men	23 May 49

MILITARY DISTRICT OF WASHINGTON CIRCULARS

Cir No.	Subject	Date
25	Competative Tour	9 May 49
26	Discharge - Appointments Medical Service Corps	16 May 49
27	Active Duty - Separation of Officers and Warrant Officers - Amendment to TM 12-425A	24 May 49

MILITARY DISTRICT OF WASHINGTON MEMORANDA

Memo No.	Subject	Date
29	Economy Program	2 May 49
30	Wearing of the Summer Uniform	18 May 49
31	Clothing Monetary Allowance System	26 May 49